| PCT  | For receiving   | ing Office use only                                     |  |  |
|--|---|---|--|--|
| 101  | ;<br>;  |   |  |  |
| •  | International Application No.   |   |  |  |
| REQUEST  |   |   |  |  |
|  | International Filing Date   |   |  |  |
| The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.                         | Name of receiving Office and  | "PCT International Application"                         |  |  |
|  | Applicant's or agent's file refe<br>(if desired) (12 characters maxim |   |  |  |
| Box No. I TITLE OF INVENTION   |   |   |  |  |
| RAW MATERIAL COMPOSITION FOR   | SODA-LIME GLASS   |   |  |  |
| Box No. II APPLICANT   | · · · · · · · · · · · · · · · · · · ·                                 | <del>- 1 ( </del>                                       |  |  |
| Name and address: (Family name followed by given name; for a designation. The address must include postal convergence.  Nippon Sheet Glass Co., Ltd. | <u> </u>  | This person is also inventor.                           |  |  |
|  |   | ephone No.<br>03-5443-9514                              |  |  |
| 5-11, Dosho-machi 3-chome, Chu<br>Osaka-shi, OSAKA 541-0045 JAPA   | O-Ku,   | simile No.  |  |  |
| ,  |   | 03-5443-9567  |  |  |
|  | Tele  | eprinter No.  |  |  |
| State (i.e. country) of nationality:  JAPAN  | State (i.e. country) of reside  | nce:<br>JAPAN   |  |  |
| This person is applicant all designated all designated for the purposes of:  |   | ted States   the States indicated in                    |  |  |
| for the purposes of: States the United S  Box No. III FURTHER APPLICANT(S) AND/OR (FURT  |   | rica only the Supplemental Box                          |  |  |
| Name and address: (Family name followed by given name; for a designation. The address must include postal co   | legal entity, full official   | This person is:   |  |  |
| SAKAI Chihiro  |   | applicant only  |  |  |
| c/o Nippon Sheet Glass Co.,Ltd   | 5-11.   | applicant and inventor                                  |  |  |
| Dosho-machi 3-chome, Chuo-ku,  | Osaka-shi,  | inventor only (If this check-box                        |  |  |
| OSAKA 541-0045 JAPAN   |   | is marked, do not fill in below.)                       |  |  |
| State (i.e. country) of nationality:  JAPAN  | State (i.e. country) of resider                                       | nce: JAPAN  |  |  |
| This person is applicant all designated states all designated the United States  |   | ted States the States indicated in the Supplemental Box |  |  |
| Further applicants and/or (further) inventors are indicated  | on a continuation sheet.  |   |  |  |
| Box No. IV AGENT OR COMMON REPRESENTATIVE  | ; OR ADDRESS FOR CORE   | RESPONDENCE   |  |  |
| The person identified below is hereby/has been appointed to act of the applicant(s) before the competent International Authorities                   | as:   | common representative                                   |  |  |
| Name and address: (Family name followed by given name; for designation. The address must include postal c  |   | ephone No.<br>03-3861-9711                              |  |  |
| 8664 Patent Attorney IWASA Yos   | niyuki  | simile No.  |  |  |
| IN Bldg., 10-17, Higashikanda  | 2-chome,  | 03-3861-9713  |  |  |
| Chiyoda-ku, TOKYO 101-0031 JAP   | AN .  | eprinter No.  |  |  |
| ,  |   |   |  |  |
| Mark this check-box where no agent or common represents  | tive is/has been appointed and t                                      | the space above is used instead to                      |  |  |

|      |      |              | _     |  |
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| She  |      | <b>\!</b> !~ | ,     |  |
| -301 | SEI. | 171          | <br>- |  |

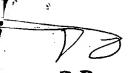
| Continuation of Box No. III FURTHER APPLICANTS AND/OR (FURTHER) INVENTORS  |  |   |  |  |
|--|--|---|--|--|
| If none of the following sub-boxes is used,  | this sheet is not to be inc                                | luded in the request.   |  |  |
| Name and address: (Family name followed by given name; for a designation. The address must include postal control of the contr | , 5-11,  | This person is:  applicant only  applicant and inventor  inventor only (If this check-box is marked, do not fill in below.) |  |  |
| JAPAN  | ()   | JAPAN   |  |  |
| This person is applicant all designated all designate for the purposes of:   |  | e United States indicated in the Supplemental Box   |  |  |
| Name and address: (Family name followed by given name; for a designation. The address must include postal co   | n legal entity, full official<br>ode and name of country.) | This person is:  applicant only  applicant and inventor  inventor only (If this check-box is marked, do not fill in below.) |  |  |
| State (i.e. country) of nationality:   | State (i.e. country) of re                                 | esidence:   |  |  |
| This person is applicant all designated all designated for the purposes of:  all designated the United St  |  | e United States the States indicated in the Supplemental Box  |  |  |
| Name and address: (Family name followed by given name; for a designation. The address must include postal co   | a legal entity, full official<br>ode and name of country.) | This person is:  applicant only  applicant and inventor  inventor only (If this check-bax is marked, do not fill in below.) |  |  |
| State (i.e. country) of nationality:   | State (i.e. country) of re                                 | esidence:   |  |  |
| This person is applicant all designated all designate for the purposes of:  all designated the United S  |  | e United States the States indicated in the Supplemental Box  |  |  |
| Name and address: (Family name followed by given name; for a designation. The address must include postal control of the contr | n legal entity, full official<br>ode and name of country.) | This person is:  applicant only  applicant and inventor  inventor only (If this check-box is marked, do not fill in below.) |  |  |
| State (i.e. country) of nationality:   | State (i.e. country) of re                                 | sidence:  |  |  |
| This person is applicant all designated all designate for the purposes of:   |  | ne United States f America only the States indicated in the Supplemental Box  |  |  |
| Further applicants and/or (further) inventors are indicated on another continuation sheet.   |  |   |  |  |

|           | 2 |
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| C1 3.1 .  |   |
| Sheet No. | - |

| Box No.V    | DESIGNATION OF STATES  |            |                |   |  |
|-------------|--|------------|----------------|---|--|
| The follow  | ving designations are hereby made under Rule 4.9(a) (n   | ıark t     | he ap          | plicable check-boxes; at least one must be marked):   |  |
| Regional    | Patent   |            |                |   |  |
| ☐ AF        | ARIPO Patent: KE Kenya, LS Lesotho, MW Malawi, SD Sudan, SZ Swaziland, UG Uganda, and any other State which is a Contracting State of the Harare Protocol and of the PCT   |            |                |   |  |
|             | Eurasian Patent: AM Armenia, AZ Azerbaijan, Moldova, RU Russian Federation, TJ Tajikistan, T of the Eurasian Patent Convention and of the PCT  | DY<br>M Tu | Delai<br>rkmei | us, KG Kyrgyzsian, KZ Kazakstan, MD Republic of nistan, and any other State which is a Contracting State  |  |
|             | ES Spain, FI Finland, FR France, GB United Kingdo  | m, G       | R Gre          | zerland and Liechtenstein, DE Germany, DK Denmark, ecc, IE Ireland, IT Italy, LU Luxembourg, MC Monaco, the which is a Contracting State of the European Patent   |  |
| 0.4         | GA Gabon, GN Guinea, ML Mali, MR Mauritania.   | NE I       | Niger.         | Republic, CG Congo, CI Côte d'Ivoire, CM Cameroon, SN Senegal, TD Chad, TG Togo, and any other State T (if other kind of protection or treatment desired, specify |  |
| National I  | Patent (if other kind of protection or treatment desired,  | enec       | ifu on         | dotted line):   |  |
| i           | Albania  |            |                | Latvia  |  |
|             | 1 Armenia  | H          |                | Republic of Moldova   |  |
|             | Austria  | H          | •              | Madagascar  |  |
|             | J Australia  | 님          |                | -   |  |
| 🗀 '''       |  | L          | IVIE           | The former Yugoslav Republic of Macedonia   |  |
| I 😐         | Azerbaijan   | _          |                | ***************************************   |  |
|             | Barbados   | Ц          |                | Mongolia  |  |
|             | Bulgaria   | $\sqcup$   |                | / Malawi  |  |
| │           | Brazil   |            | MX             | Mexico  |  |
| I ≌⁄ ⁻⁻     | Belarus  |            | NO             | Norway  |  |
| ☑ CA        | Canada   |            | NZ             | New Zealand   |  |
| CI CI       | and LI Switzerland and Liechtenstein   |            | PL             | Poland  |  |
| ☐ CN        | China  |            | PT             | Portugal  |  |
|             | Czech Republic   |            | RO             | Romania   |  |
| DE          | Germany  | $\sqcap$   | RU             | Russian Federation  |  |
| DF          | Denmark  | $\sqcap$   | SD             | Sudan   |  |
| ☐ EE        | Estonia  | Ħ          | SE             | Sweden  |  |
| ES          | Spain  | Ħ          | SG             | Singapore   |  |
| ∣⊢г         | Finland  | Ħ          | SI             | Slovenia  |  |
|             | United Kingdom   | Ħ          | SK             |   |  |
| 1 =         | Georgia  | H          | TJ             | Tajikistan  |  |
| : =         | J Hungary  | H          |                | Turkmenistan  |  |
|             | Israel   | 귀          | TR             | Turkey  |  |
|             | Iceland  | $\vdash$   | TT             | Trinidad and Tobago   |  |
| 15<br>  JP  | Japan  | 님          |                | Ukraine   |  |
| l ⊨         | •  | 片          |                |   |  |
|             | Kenya Kyrgyzstan Kyrgy | 닖          | US US          | Uganda  |  |
| l 😕         |  | שו         | US             | United States of America  |  |
| ∣⊔к         |  |            |                | ** * * * .  |  |
|             |  | 닏          |                | Uzbekistan  |  |
| =           | R Republic of Korea  | Ш          | VN             | Viet Nam  |  |
|             | Kazakstan  |            |                | oxes reserved for designating States (for the purposes of   |  |
|             | K Sri Lanka  |            |                | l patent) which have become party to the PCT after of this sheet:   |  |
| ☑ LF        | t Liberia  |            |                |   |  |
|             | Lesotho  | ᆜ          |                |   |  |
| [ ] rı      | C Lithuania  | 닏          |                |   |  |
|             | J Luxembourg   |            |                |   |  |
|             |  | make       | s und          | er Rule 4.9(b) all designations which would be permitted  |  |
|             | PCT except the designation(s) of   | ect *-     | conf           | emation and that any decimation which is not any  |  |
|             |  |            |                | rmation and that any designation which is not confirmed withdrawn by the applicant at the expiration of that time   |  |
| limit. (Co  | nfirmation of a designation consists of the filing of a notice spe   | cifying    | g that e       | designation and the payment of the designation and confirmation   |  |
| fees. Confi | mation must reach the receiving Office within the 15-month time  | limit.)    |                |   |  |

|           |  |  | 4 |  |
|-----------|--|--|---|--|
| Sheet No. |  |  |   |  |

| Box No. VI PRIORITY CI   | AIM  | Further priority claims are indicated in  | the Supplemental Box  |  |  |
|--|--|---|---|--|--|
| The priority of the following ea   | rlier application(s) is hereby cla                                       | imed:   |   |  |  |
| Country (in which, or for which, the application was filed)                                      | Filing Date<br>(day/month/year)  | Application No.   | Office of filing<br>(only for regional or<br>international application) |  |  |
| item (1)   |  |   |   |  |  |
| JAPAN  | 7.7.98   | 10/191,221  | F   |  |  |
| item (2)   |  |   |   |  |  |
| item (3)   |  |   |   |  |  |
|  |  |   |   |  |  |
| application is the receiving Office  | a fee may be required):  | on is to be issued by the Office which for the pur  | poses of the present international                                      |  |  |
| The receiving Office is he Bureau a certified copy o   | ereby requested to prepare and to<br>f the earlier application(s) identi | ransmit to the International ( ified above as item(s):(   | 1)  |  |  |
| Box No. VII INTERNATIO   | NAL SEARCHING AUTHOR   | UTY   |   |  |  |
| Choice of International Search   | thing Authority (ISA) (If two o  | or more International Searching Authorities   | ICA / 7D  |  |  |
|  |  | ity chosen; the two-letter code may be used);   |   |  |  |
| out or requested and the Authority is  | rnow requested to base the internati                                     | pe or other) by the International Searching Au<br>ional search, to the extent possible, on the resu<br>(or the translation thereof) or by reference to<br>Number: | lts of that earlier search. Identify                                    |  |  |
| Box No. VIII CHECK LIST  |  |   |   |  |  |
| This international application   |  | onal application is accompanied by the i  | tem(s) marked below:  |  |  |
| the following number of shee<br>1. request : 4   |  | arate signed ver of attorney  5. fee cal  | culation sheet  |  |  |
| 2. description : 9   | sheets a COD   | y of general separa   | ate indications concerning  |  |  |
| 3. claims : 2  | sheets pov   | ver of attorney 6. depos  | ate indications concerning ited microorganisms                          |  |  |
| 4. abstract : 1  |  | ement explaining 7. nucleo  | otide and/or amino acid<br>nee listing (diskette)                       |  |  |
| 5. drawings :  | sheets 4. pric   | rity document(s)  | (specify):  |  |  |
|  | Total: 16 sheets as item(s):   |   |   |  |  |
| Figure No of the   | drawings (if any) should accom   | pany the abstract when it is published.   |   |  |  |
|  | OF APPLICANT OR AGENT  |   |   |  |  |
| Next to each signature, indicate the na  | me of the person signing and the capac                                   | ity in which the person signs (if such capacity is n  | ot obvious from reading the request).                                   |  |  |
|  |  |   |   |  |  |
|  | IWASA Yoshiyuki  |   |   |  |  |
|  |  |   |   |  |  |
|  |  |   |   |  |  |
|  |  |   |   |  |  |
|  | Cos receive  | ing Office use only   |   |  |  |
| Date of actual receipt of the international application:   |  | ing office asc offity   | 2. Drawings:  |  |  |
| Corrected date of actual rec-<br>timely received papers or dr<br>the purported international ac- | awings completing  |   | received:   |  |  |
| Date of timely receipt of the corrections under PCT Arti-  | required<br>cle 11(2):   |   | not received:   |  |  |
| 5. International Searching Aut specified by the applicant:                                       | hority ISA /   | 6. Transmittal of search copy de until search fee is paid   | elayed  |  |  |
| <u> </u>   | For Internation  | onal Bureau use only  |   |  |  |
| Date of receipt of the record co<br>by the International Bureau:                                 |  |   |   |  |  |



EP

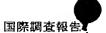


PCT

(法8条、法施行規則第40、41条) [PCT18条、PCT規則43、44]

国際調査報告

| 出願人又は代理人<br>の書類記号 IWAP-9905         | 今後の手続きについては、国際調査報告の送付通知様式(PCT/ISA/220)<br>及び下記5を参照すること。   |
|-------------------------------------|---|
| 国際出願番号<br>PCT/JP99/03630            | 国際出願日<br>(日.月.年) 06.07.99 優先日<br>(日.月.年) 07.07.98   |
| 出願人(氏名又は名称)<br>日本板                  | 硝子株式会社  |
| 国際調査機関が作成したこの国際調査 この写しは国際事務局にも送付される | 、<br>查報告を法施行規則第41条(PCT18条)の規定に従い出願人に送付する。<br>る。   |
| この国際調査報告は、全部で 3                     | ページである。   |
| □ この調査報告に引用された先行打                   | 支術文献の写しも添付されている。  |
|                                     | くほか、この国際出願がされたものに基づき国際調査を行った。<br>れた国際出願の翻訳文に基づき国際調査を行った。  |
| b. この国際出願は、ヌクレオチ<br>この国際出願に含まれる書    | ド又はアミノ酸配列を含んでおり、次の配列表に基づき国際調査を行った。<br>面による配列表   |
| □この国際出願と共に提出さ                       | れたフレキシブルディスクによる配列表  |
|                                     | 関に提出された書面による配列表   |
|                                     | 関に提出されたフレキシブルディスクによる配列表<br>る配列表が出願時における国際出願の開示の範囲を超える事項を含まない旨の陳述  |
|                                     | た配列とフレキシブルディスクによる配列表に記録した配列が同一である旨の陳述   |
| 2. 請求の範囲の一部の調査な                     | ができない(第 I 欄参照)。   |
| 3. 党明の単一性が欠如してい                     | いる(第Ⅱ欄参照)。  |
| 4. 発明の名称は X 出版                      | 頭人が提出したものを承認する。   |
| □ 次Ⅰ                                | こ示すように国際調査機関が作成した。  |
| 5. 要約は 🗵 出願                         | 頭人が提出したものを承認する。   |
| · 国的                                | II 欄に示されているように、法施行規則第47条(PCT規則38.2(b))の規定により<br>祭調査機関が作成した。出願人は、この国際調査報告の発送の日から1カ月以内にこ<br>国際調査機関に意見を提出することができる。 |
| 6. 要約書とともに公表される図は、<br>第 図とする。       | 頭人が示したとおりである。 X なし  |
| □ 出版                                | 質人は図を示さなかった。  |
| □ 本国                                | 図は発明の特徴を一層よく表している。  |



| Α | 発明の属する分野 | の分類(国 | 際特許分類 | ( I | PC | ) | ) |
|---|----------|-------|-------|-----|----|---|---|
|---|----------|-------|-------|-----|----|---|---|

Int. C1° C03C1/00

## 調査を行った分野

調査を行った最小限資料(国際特許分類(iPC))

Int. Cl CO3C1/00-25/06

## 最小限資料以外の資料で調査を行った分野に含まれるもの

日本国実用新案公報

1922-1996年

日本国公開実用新案公報

1971-1999年

日本国登録実用新案公報

1994-1999年

日本国実用新案登録公報 1996-1999年

国際調査で使用した電子データベース(データベースの名称、調査に使用した用語) WP I/L

> (NIS OR NIAS OR (SULPH? AND NI?) OR (SULPHIDE? AND NICKEL?)) AND IC=CO3C AND NA2SO4 (NIS OR NIAS OR (SULPH? AND NI?) OR (SULPHIDE? AND NICKEL?)) AND (IC=CO3C-001 OR IC=CO3C-003)

明本トフし知られてかなかね

| C. 関連する | 5と認められる文献   |  |
|---------|---|--|
| 引用文献の   |   | 関連する                                       |
| カテゴリー*  | 引用文献名 及び一部の箇所が関連するときは、その関連する箇所の表示   | 請求の範囲の番号                                   |
|         | EP, 0823404, A2 (Ford Motor Company)<br>11 2月 1998 (11.02.98)<br>第2頁第40~53行、第3頁、第5頁第56~57行<br>&US, 5725628, A |  |
| X       |   | $\begin{vmatrix} 1-3 \\ 5-7 \end{vmatrix}$ |
| Y       |   | $\begin{vmatrix} 1-3 \\ 5-7 \end{vmatrix}$ |
|         |   |  |

## C欄の続きにも文献が列挙されている。

パテントファミリーに関する別紙を参照。

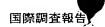
## 引用文献のカテゴリー

- 「A」特に関連のある文献ではなく、一般的技術水準を示す
- 「E」国際出願日前の出願または特許であるが、国際出願日 以後に公表されたもの
- 「L」優先権主張に疑義を提起する文献又は他の文献の発行 日若しくは他の特別な理由を確立するために引用する 文献 (理由を付す)
- 「〇」口頭による開示、使用、展示等に言及する文献
- 「P」国際出願日前で、かつ優先権の主張の基礎となる出願

の日の後に公表された文献

- 「T」国際出願日又は優先日後に公表された文献であって て出願と矛盾するものではなく、発明の原理又は理 論の理解のために引用するもの
- 「X」特に関連のある文献であって、当該文献のみで発明 の新規性又は進歩性がないと考えられるもの
- 「Y」特に関連のある文献であって、当該文献と他の1以 上の文献との、当業者にとって自明である組合せに よって進歩性がないと考えられるもの
- 「&」同一パテントファミリー文献

国際調査を完了した日 国際調査報告の発送日 05.10.99 24.09.99 特許庁審査官(権限のある職員) 9635 国際調査機関の名称及びあて先 日本国特許庁(ISA/JP) 鈴木 紀子 郵便番号100-8915 電話番号 03-3581-1101 内線 3464 東京都千代田区霞が関三丁目4番3号



| C (続き).         | 関連すると認められる文献   | T                          |
|-----------------|--|----------------------------|
| 引用文献の<br>カテゴリー* | 引用文献名 及び一部の箇所が関連するときは、その関連する箇所の表示  | 関連する<br>請求の範囲の番号           |
| X               | JP, 51-007006, A (セントラル硝子株式会社)<br>21.1月.1976 (21.01.76)<br>全文、第2表の試料番号3.4.12,13 (ファミリーなし)  | 1, 2,<br>4-6, 8<br>1-8     |
| X<br>Y          | JP, 09-169537, A (日本板硝子株式会社)<br>30.6月.1997 (30.06.97)<br>【0005】-【0015】段落、【0019】-【0020】<br>段落、表1 (ファミリーなし)  | 1, 5<br>1-3,<br>5-7        |
| X               | JP, 07-144922, A(ピーピージー インダストリーズ, インコーポレーテッド) 06.6月.1995(06.06.95) 請求項1,2,6、【0005】-【0008】段落、 【0011】段落、【0027】段落 &EP,639537, A1 &US,5401287, A &BR,9402764, A &CA,2129086, A &CA,2129086, A &DE,69401623, E &CN,1102628, A &JP,02-744201, B2 &MX,185484, B | 1-3,<br>5-7<br>1-3,<br>5-7 |